REMARKS

The final Office Action mailed January 3, 2005 has been reviewed and carefully considered. Claims 36-55 have been canceled (claims 1-35 were previously canceled) and new claims 56-68 have been added. Claims 56-68 are pending.

In paragraph three on page 2 of the Office Action, claims 36, 41-43, 48-50, and 53-55 were rejected under § 103(a) over Burkhardt, Jr. et al. (U.S. Patent No. 5,142,683) in view of Peterson et al. (U.S. Patent No. 6,665,673).

In paragraph four on page 5 of the Office Action, claims 37, 38, 40, 44, 45, 47, 51, and 52 were rejected under § 103(a) over Burkhardt, Jr. et al. (U.S. Patent No. 5,142,683) in view of Peterson et al. (U.S. Patent No. 6,665,673), and further in view of Suh et al. (U.S. App. Pub. No. 2002/0161536).

In paragraph 1 on page 6 of the Office Action, claims 39 and 46 were rejected under § 103(a) over Burkhardt, Jr. et al. (U.S. Patent No. 5,142,683) in view of Peterson et al. (U.S. Patent No. 6,665,673), Suh et al. (U.S. App. Pub. No. 2002/0161536), and further in view of Urui et al. (JP 61196613).

Applicant respectfully traverses the § 103(a) rejections. Applicant invention, as recited at least in independent claims 56, 65 and 68, require a peripheral device processor for controlling operation of the peripheral device and a host messaging unit, coupled to the peripheral device processor, but separate from the peripheral device processor, the host messaging unit retrieving host commands from a host memory of a discrete host without adding process loading to the peripheral device processor, validating the retrieved host command and asynchronously signaling a successful transfer of the host commands from host memory to the host messaging unit.

Burkhardt, Jr. et al. fail to disclose, at least, a host messaging unit, coupled to the peripheral device processor, but separate from the peripheral device processor. Rather, according to Burkhardt, Jr. et al., a mailbox protocol is used to allow agents running in two processors to communicate. A client agent 115 is part of a first processor 29 and a service agent 121 is part of the second processor 22. The client agent 115 places messages in memory 111. However, memory 111 is part of the first processor 29. The client agent 115 then signals the service agent 121 to check memory 111 for messages.

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Thus, the client agent 115 is acting as a host because the message being retrieved by the service agent 121 is that from the client agent 115.

Moreover, Burkhardt, Jr. et al. fail to suggest a host messaging unit that retrieves host commands from a host memory of a discrete host without adding process loading to the peripheral device processor. Rather, Burkhardt, Jr. et al., as described above, discloses a mailbox protocol is used to allow agents running in two processors to communicate. Nevertheless, the client agent 115 is part of a first processor 29 and the service agent 121 is part of the second processor 22. The client agent 115 places messages in memory 111. However, memory 111 is part of the first processor 29. Therefore, Burkhardt, Jr. et al. fail to suggest a host messaging unit that retrieves host commands from a host memory of a discrete host without adding process loading to the peripheral device processor.

Moreover, the messaging of Burkhardt, Jr. et al. is not asynchronous to a host regardless whether one considers processor 29 or processor 22 to be the host. Rather, both agents are controlled by their respective processors and the communications are performed synchronous to interrupts signals rather than asynchronous to the host. Further, the service agent 121 and the client agent cannot be said to communicate asynchronously with each other because the process is continuous based upon the interrupts. The Office Action recognizes this structure in admitting that Burkhardt, Jr. et al. fail to disclose that the host processor is bypassed.

Peterson et al. fail to remedy the deficiencies of Burkhardt, Jr. et al. Peterson et al. fail to disclose, teach or suggest a host messaging unit, coupled to the peripheral device processor, but separate from the peripheral device processor. Moreover, Peterson et al. fail to disclose, teach or suggest that the host messaging unit retrieves host commands from a host memory of a discrete host without adding process loading to the peripheral device processor or asynchronously signals a successful transfer of the host commands from host memory to the host messaging unit.

Moreover, Burkhardt, Jr. et al., Peterson et al., Suh et al., and Urui et al., alone or in combination, fail to remedy the deficiencies of Burkhardt, Jr. et al. Suh et al. merely teaches a polling clock. Urui et al. merely teaches polling memory at a required time. However, Burkhardt, Jr. et al., Peterson et al., Suh et al., and Urui et al. alone or in combination, fail to disclose, teach or suggest a host messaging unit, coupled to the peripheral device processor, but separate from the peripheral device processor. Moreover, Burkhardt, Jr. et al., Peterson et al.,

Suh et al., and Urui et al., alone or in combination, also fail to disclose, teach or suggest that the host messaging unit retrieves host commands from a host memory of a discrete host without adding process loading to the peripheral device processor or asynchronously signals a successful transfer of the host commands from host memory to the host messaging unit.

Therefore, Applicant respectfully submits that Applicant's invention is patentable over the cited references and requests that the § 103(a) rejection of the claims be withdrawn.
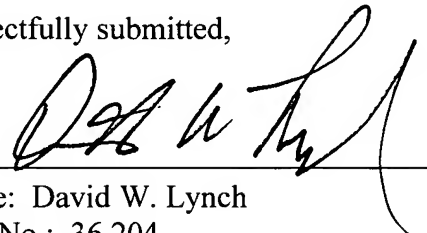
Dependent claims 57-64 and 66-67 are also patentable over the references, because they incorporate all of the limitations of the corresponding independent claims 56 and 65. Further, dependent claims 57-64 and 66-67 recite additional novel elements and limitations. Applicants reserve the right to argue independently the patentability of these additional novel aspects. Therefore, Applicants respectfully submit that dependent claims 57-64 and 66-67 are patentable over the cited patent.

On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested. Please charge/credit Deposit Account No. 50-0996 (IBMS.040US01) for any deficiencies/overpayments.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Attorney for Applicants, David W. Lynch, at 651-686-6633 Ext. 116.

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